

IN THE CLAIMS:

1. (Currently Amended) A method of ~~determining whether a conductive element of a probe is located adjacent to~~ identifying a characterized body tissue located adjacent to a conductive element of a probe comprising the steps of:
 - a) applying an electrical signal to the conductive element;
 - b) determining characteristics of the applied signal, including a phase angle; and
 - c) ~~determining whether the conductive element of a probe is located adjacent to~~ identifying a characterized body tissue located adjacent to the conductive element of a probe based on the phase angle of the applied signal, wherein said characterized body tissue comprises at least one of cortical bone~~[[,]]~~ and cancellous bone, ~~or cortical bone near the boundary with soft tissue.~~
2. (Currently Amended) The method of claim 1, wherein the determined characteristics of the applied signal include an impedance of the signal through the tissue.
3. (Previously Presented) The method of claim 1, wherein the probe comprises one of a cannula and a cathode.
4. (Previously Presented) The method of claim 1, wherein step a) applies signals having a range of predetermined frequencies to the conductive element.

5. (Currently Amended) The method of claim 1, wherein step c) includes ~~determining whether the conductive element of a probe is located adjacent to said tissue~~ identifying the characterized body tissue located adjacent to the conductive element of said probe based on the determined characteristics and frequency of the resulting signal.
6. (Previously Presented) The method of claim 1, wherein the conductive element is an electrode.
7. (Previously Presented) The method of claim 1, wherein the conductive element includes a pair of electrodes and the signal is passed between said electrodes.
8. (Previously Presented) The method of claim 1, wherein the signal is an electrical signal having a sliding frequency.
9. (Currently Amended) An article of manufacture for use in ~~determining whether a conductive element of a probe is located adjacent to~~ identifying a characterized body tissue located adjacent to a conductive element of a probe, the article of manufacture comprising computer readable storage media including program logic embedded therein that causes control circuitry to perform the steps of:
 - a) applying a signal to the conductive element;
 - b) determining characteristics of the applied signal, including a phase angle;and

- c) ~~determining whether the conductive element of a probe is located adjacent~~
to identifying a characterized body tissue located adjacent to the
conductive element of a probe based on the phase angle of the applied
signal, wherein said characterized body tissue comprises at least one of
cortical bone[[,]] and cancellous bone,~~or cortical bone near the boundary~~
~~with soft tissue.~~
10. (Currently Amended) The article of manufacture of claim 9, wherein the
determined characteristics of the applied signal further include an impedance of
the signal through the tissue.
11. (Previously Presented) The article of manufacture of claim 9, wherein the probe
comprises one of a cannula and a cathode.
12. (Previously Presented) The article of manufacture of claim 9, wherein step a)
applies signals having a range of predetermined frequencies to the conductive
element.
13. (Currently Amended) The article of manufacture of claim 9, wherein step c)
includes ~~determining whether the conductive element of a probe is located~~
~~adjacent to said tissue~~ identifying the characterized body tissue located adjacent to
the conductive element of said probe based on the determined characteristics and
frequency of the resulting signal.

14. (Previously Presented) The article of manufacture of claim 9, wherein the conductive element is an electrode.
15. (Previously Presented) The article of manufacture of claim 9, wherein the conductive element includes a pair of electrodes and the signal is passed between said electrodes.
16. (Previously Presented) The article of manufacture of claim 9, wherein the signal is an electrical signal having a sliding frequency.
17. (Currently Amended) An apparatus for use in ~~determining whether a conductive element of a probe is located adjacent to~~ identifying a characterized body tissue located adjacent to a conductive element of a probe, the apparatus including:
 - a) means for applying a signal to the conductive element;
 - b) means for determining characteristics of the applied signal, including a phase angle of the signal; and
 - c) means for ~~determining whether the conductive element of a probe is located adjacent to~~ identifying a characterized body tissue located adjacent to the conductive element of a probe based on the phase angle of the applied signal, wherein said characterized body tissue comprises at least one of cortical bone[[,]] and cancellous bone, or cortical bone near the boundary with soft tissue.

18. (Currently Amended) The apparatus of claim 17, wherein the determined characteristics of the applied signal include an impedance of the signal through the tissue.
19. (Previously Presented) The apparatus of claim 17, wherein the probe comprises one of a cannula and a cathode.
20. (Previously Presented) The apparatus of claim 17, wherein means for applying a signal includes means for applying signals having a range of predetermined frequencies to the conductive element.
21. (Currently Amended) The apparatus of claim 17, wherein the means for ~~determining whether the conductive element of a probe is located adjacent to said~~ tissue identifying said tissue located adjacent to the conductive element of said probe includes means for determining whether the conductive element of a probe is located adjacent to said tissue based on the determined characteristics and frequency of the signal.
22. (Previously Presented) The apparatus of claim 17, wherein the conductive element is an electrode.

23. (Previously Presented) The apparatus of claim 17, wherein the conductive element includes a pair of electrodes and the signal is passed between said electrodes.
24. (Previously Presented) The apparatus of claim 17, wherein the signal is an electrical signal having a sliding frequency.